BRUHAT BANGALORE MAHANAGARA PALIKE

Byatarayanapura Division

PRE-MEASUREMENT SHEET

FIRST AND FINAL BILL Date of Recording -

NAME OF WORK: - IMPROVEMENTS TO ROADS AND DRAINS AT TELECOM LAYOUT ROADS AND SURROUNDING AREAS IN WARD NO.13 (DODDABOMMASANDRA)

SL NO	PARTICULARS	UNIT	NO	MEASUREMENT					QUANTITY	RATE	AMOUNT
				LENGTH	BREADTH			DEPTH			
					B1	B2	AVG B				
1	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)										
		Cum									
	Qty Recorded as per Premeasurement Page No. is		1·2	1-2					156.82	204.60	32085.37
2	Providing and laying in position Plain Cement Concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)										
		Cum									
	Qty Recorded as per Premeasurement Page No. is		2						1.35	6109.40	8247.69
3	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) Item No. 5.4, Page No. 9, Vol - II PWD SR 2021-22										
		Cum									
	Qty Recorded as per Premeasurement Page No. is		2						6.48	5964.20	38648.02
4	Providing ruled pointing to cursed stone masonry with lime mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost all materials, labour, usage charges of machinery, curing complete as pre specification. Item No. 21.10 Page No. 190, Vol - II PWD SR 2021-22										
		Sqm									
	Qty Recorded as per Premeasurement Page No. is		2-3	2-3					11.16	261.80	2921.69
5	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite / trap / basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate (PWD SR 2021-22 Vol -I Pg. 15 Item no 2.1.4)										
		Cum									
	Qty Recorded as per Premeasurement Page No. is		3-4						20.66	6300.80	130174.528
6	Providing and constructing load bearing wall with Solid Concrete blocks of size 400 x 150 x 200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications. (PWD SR 2021-22 Vol - II Pg 17, item no 6.3)										

		Sqm										
	Qty Recorded as per Premeasurement Page No. is 4-5 4-5									329.12	1173.70	386288.144
7	Providing and Fixing pre cast Covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting, including form work,curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, copmplete. (Data Rate)											
a	**Covering Slab**											
	Telecom Layout											
	chainage 0 to 15m	Sqm	1.00	15.00	0.75	0.75	0.75			11.25		
	chainage 15 to 30m	Sqm	1.00	8.40	0.75	0.75	0.75			6.30		
	chainage 30 to 45m	Sqm	1.00	9.00	0.75	0.75	0.75			6.75		
	chainage 45 to 60m	Sqm	1.00	12.85	0.75	0.75	0.75			9.64		
	chainage 60 to 69.6m	Sqm	1.00	9.80	0.75	0.75	0.75			7.35		
										0.00		
	chainage 0 to 15m	Sqm	1.00	9.10	0.75	0.75	0.75			6.83		
	chainage 15 to 30m	Sqm	1.00	13.05	0.75	0.75	0.75			9.79		
	chainage 30 to 45m	Sqm	1.00	10.50	0.75	0.75	0.75			7.88		
	chainage 45 to 60m	Sqm	1.00	8.80	0.75	0.75	0.75			6.60		
	chainage 60 to 75m	Sqm	1.00	15.00	0.75	0.75	0.75			11.25		
	chainage 75 to 90m	Sqm	1.00	15.00	0.75	0.75	0.75			11.25		
	chainage 90 to 105m	Sqm	1.00	10.80	0.75	0.75	0.75			8.10		
	chainage 105 to 121.6m	Sqm	1.00	1.20	0.75	0.75	0.75			0.90		
	Ganesh Nagara Main Road[LHS]											
	chainage 0 to 15m	Sqm	2.00	0.60	0.90	0.90	0.90			1.08		
	chainage 15 to 30m	Sqm	3.00	0.60	0.90	0.90	0.90			1.62		
	chainage 30 to 45m	Sqm	2.00	0.60	0.90	0.90	0.90			1.08		
	chainage 45 to 60m	Sqm	2.00	0.60	0.90	0.90	0.90			1.08		
	chainage 60 to 75m	Sqm	3.00	0.60	0.90	0.90	0.90			1.62		
	chainage 75 to 90m	Sqm	6.00	0.60	0.90	0.90	0.90			3.24		
	chainage 90 to 105m	Sqm	3.00	0.60	0.90	0.90	0.90			1.62		
	chainage 105 to 120m	Sqm	3.00	0.60	0.90	0.90	0.90			1.62		
	chainage 120 to 135m	Sqm	4.00	0.60	0.90	0.90	0.90			2.16		
	chainage 135 to 150m	Sqm	1.00	0.60	0.90	0.90	0.90			0.54		
	chainage 150 to 165m	Sqm	2.00	0.60	1.20	1.20	1.20			1.44		
	chainage 165 to 180m	Sqm	3.00	0.60	1.20	1.20	1.20			2.16		
	chainage 180 to 195m	Sqm	1.00	0.60	1.20	1.20	1.20			0.72		
	chainage 195 to 210m	Sqm	2.00	0.60	1.20	1.20	1.20			1.44		
	chainage 210 to 225m	Sqm	3.00	0.60	1.20	1.20	1.20			2.16		
	chainage 225 to 240m	Sqm	4.00	0.60	1.20	1.20	1.20			2.88		
	chainage 240to 255m	Sqm	5.00	0.60	1.20	1.20	1.20			3.60		
	chainage 255to 270m	Sqm	3.00	0.60	1.20	1.20	1.20			2.16		
	chainage 270to 285m	Sqm	6.00	0.60	1.20	1.20	1.20			4.32		
	chainage 285to 300m	Sqm	2.00	0.60	1.20	1.20	1.20			1.44		
	Ganesh Nagara Main Road[RHS]											
	chainage 135 to 150m	Sqm	2.00	0.60	1.20	1.20	1.20			1.44		
	chainage 165 to 180m	Sqm	2.00	0.60	1.20	1.20	1.20			1.44		
	chainage 195 to 210m	Sqm	3.00	0.60	1.20	1.20	1.20			2.16		
	chainage 225 to 240m	Sqm	2.00	0.60	1.20	1.20	1.20			1.44		
	chainage 270to 285m	Sqm	2.00	0.60	1.20	1.20	1.20			1.44		
									Total Qty	149.78		
									Limited to	149.55		
								Qty upto 125%		86.40	1972.00	170380.80
								Qty above 125%		63.15	1974.20	124670.73
8	Providing and Fixing pre cast Covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete. As per Engineer incharge											
	Culvert	Sqm	1.00	6.20			1.20			7.44		
									Total Qty	7.44	5037.00	37475.28

9	Earth work in surface Excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)										7612.50
		Cum								72.50	
	Qty Recorded as per Premeasurement Page No. is 5								105.000	71.50	7507.50
10	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no. 24 Item No. 4.27 (A))										
		Cum									
	Qty Recorded as per Premeasurement Page No. is 6								131.250	1600.00	210000.00
11	Providing and applying Primer Coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no. 29 Item No. 5.1 A (i))										
		Sqm									
	Qty Recorded as per Premeasurement Page No. is 6-7								525.000	46.20	24255.00
12	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))										
		Cum									
	Qty Recorded as per Premeasurement Page No. is 7 7								21.880	10052.92	219957.89
13	Providing and applying Tack Coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no. 29 Item No 5.4 (ii))										
		Sqm									
	Qty Recorded as per Premeasurement Page No. is 7-8								1576.120	15.40	24272.25
14	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 21-22 Vol III Pg no 36 Item No 5.16)										
	Road Work										
	Telecom Layout										
	chainage 0 to 15m	Cum	1	15.00	4.30	4.50	4.40	0.04	2.64		
	chainage 15 to 30m	Cum	1	15.00	4.50	4.70	4.60	0.04	2.76		
	chainage 30 to 45m	Cum	1	15.00	4.70	5.00	4.85	0.04	2.91		
	chainage 45 to 60m	Cum	1	15.00	5.00	4.70	4.85	0.04	2.91		
	chainage 60 to 69.6m	Cum	1	9.60	4.70	4.80	4.75	0.04	1.82		
	chainage 0 to 15m	Cum	1	15.00	4.80	4.70	4.75	0.04	2.85		
	chainage 15 to 30m	Cum	1	15.00	4.70	4.60	4.65	0.04	2.79		
	chainage 30 to 45m	Cum	1	15.00	4.60	4.75	4.68	0.04	2.81		
	chainage 45 to 60m	Cum	1	15.00	4.75	4.80	4.78	0.04	2.87		
	chainage 60 to 75m	Cum	1	15.00	4.80	4.70	4.75	0.04	2.85		
	chainage 75 to 90m	Cum	1	15.00	4.70	4 80	4.75	0.04	2.85		
	chainage 90 to 105m	Cum	1	15.00	4.80	4.90	4.85	0.04	2.91		

32.96

	chainage 105 to 121.6m	Cum	1	16.60	4.90	5.00	4.95	0.04	3.29		
	Ganeshnagara 7th Cross										
	chainage 0 to 15m	Cum	1	15.00	4.80	4.60	4.70	0.04	2.82		
	chainage 15 to 30m	Cum	1	15.00	4.60	4.50	4.55	0.04	2.73		
	chainage 30 to 45m	Cum	1	15.00	4.50	4.40	4.45	0.04	2.67		
	chainage 45 to 60m	Cum	1	15.00	4.40	4.60	4.50	0.04	2.70		
	chainage 60 to 75m	Cum	1	15.00	4.60	4.80	4.70	0.04	2.82		
	chainage 75 to 90m	Cum	1	15.00	4.80	4.40	4.60	0.04	2.76		
	chainage 90 to 105m	Cum	1	15.00	4.40	4.50	4.45	0.04	2.67		
	chainage 105 to 120m	Cum	1	15.00	4.50	4.30	4.40	0.04	2.64		
	chainage 120 to 135m	Cum	1	15.00	4.30	4.20	4.25	0.04	2.55		
	chainage 135 to 145.9m	Cum	1	10.90	4.20	4.80	4.50	0.04	1.96		
	Road Cutting /Patch work	Cum	4	1.70	1.80	1.80	1.80	0.04	0.49		
								Total Qty	**63.06**		
								Limited to	**63.02**	**11672.10**	**735575.742**
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 21-22 Vol III Pg no 57 Item No 8.15)										
	Road Work										
	Telecom Layout										
	chainage 0 to 15m	Sqm	2	15.00			0.10		3.00		
	chainage 15 to 30m	Sqm	2	15.00			0.10		3.00		
	chainage 30 to 45m	Sqm	2	15.00			0.10		3.00		
	chainage 45 to 60m	Sqm	2	15.00			0.10		3.00		
	chainage 60 to 69.6m	Sqm	2	9.60			0.10		1.92		
							0.10		0.00		
	chainage 0 to 15m	Sqm	2	15.00			0.10		3.00		
	chainage 15 to 30m	Sqm	2	15.00			0.10		3.00		
	chainage 30 to 45m	Sqm	2	15.00			0.10		3.00		
	chainage 45 to 60m	Sqm	2	15.00			0.10		3.00		
	chainage 60 to 75m	Sqm	2	15.00			0.10		3.00		
	chainage 75 to 90m	Sqm	2	15.00			0.10		3.00		
	chainage 90 to 105m	Sqm	2	15.00			0.10		3.00		
	chainage 105 to 121.6m	Sqm	2	16.60			0.10		3.32		
	Ganeshnagara 7th Cross										
	chainage 0 to 15m	Sqm	2	15.00			0.10		3.00		
	chainage 15 to 30m	Sqm	2	15.00			0.10		3.00		
	chainage 30 to 45m	Sqm	2	15.00			0.10		3.00		
	chainage 45 to 60m	Sqm	2	15.00			0.10		3.00		
	chainage 60 to 75m	Sqm	2	15.00			0.10		3.00		
	chainage 75 to 90m	Sqm	2	15.00			0.10		3.00		
	chainage 90 to 105m	Sqm	2	15.00			0.10		3.00		
	chainage 105 to 120m	Sqm	2	15.00			0.10		3.00		
	chainage 120 to 135m	Sqm	2	15.00			0.10		3.00		
	chainage 135 to 145.9m	Sqm	2	10.90			0.10		2.18		
								Total Qty	**67.42**		
								Limited to	**66.00**	**525.80**	**34702.80**
16	Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kankar / Moorum. (Tipper 14 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1C)										
		Cum									
	Qty Recorded as per Premeasurement Page No. is								**240.870**	**81.40**	**19606.82**
17	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4B)										
		T.km									
	Qty Recorded as per Premeasurement Page No. is								**308.310**	**115.50**	**35609.81**

E1	Supplying and fixing M15 grade precast cement concrete 600 x 300 x 150 mm Kerb Stone for Roadway, Sidewalls and gutters fixed with CM 1:3 fixed and finsihed in line as per direction of Engineer in charge. (PWD SR 2021-22 Vol III Pg no 146 Item no 6.3)											
	Ganeshnagara 7th Cross[LHS]											
	chainage 0 to 15m	Mtr	1.00	14.40					14.40			
	chainage 15 to 30m	Mtr	1.00	15.00					15.00			
	chainage 30 to 45m	Mtr	1.00	15.00					15.00			
	chainage 45 to 60m	Mtr	1.00	6.10					6.10			
	chainage 60 to 75m	Mtr	1.00	15.00					15.00			
	chainage 75 to 90m	Mtr	1.00	5.00					5.00			
	chainage 90 to 105m	Mtr	1.00	15.00					15.00			
	chainage 105 to 120m	Mtr	1.00	14.00					14.00			
	chainage 120 to 135m	Mtr	1.00	15.00					15.00			
	chainage 135 to 145.9m	Mtr	1.00	10.90					10.90			
	Ganeshnagara 7th Cross[RHS]											
	chainage 0 to 15m	Mtr	1.00	15.00					15.00			
	chainage 15 to 30m	Mtr	1.00	15.00					15.00			
	chainage 30 to 45m	Mtr	1.00	15.00					15.00			
	chainage 45 to 60m	Mtr	1.00	15.00					15.00			
	chainage 60 to 75m	Mtr	1.00	15.00					15.00			
	chainage 75 to 90m	Mtr	1.00	15.00					15.00			
	chainage 90 to 105m	Mtr	1.00	15.00					15.00			
	chainage 105 to 120m	Mtr	1.00	15.00					15.00			
	chainage 120 to 135m	Mtr	1.00	5.30					5.30			
								Total Qty	**250.70**			
								Limited to	**250.00**	**443.34**	**110835.00**
E2	Painting Two Coats on New Concrete Surfaces Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concretesurfaces. MORTH Chapter 803 (PWD SR 2021-22 Vol III Pg no 56 Item No 8.10)											
	Ganeshnagara 7th Cross[LHS]											
	chainage 0 to 15m	Sqm	1.00	14.40				0.40	5.76			
	chainage 15 to 30m	Sqm	1.00	15.00				0.40	6.00			
	chainage 30 to 45m	Sqm	1.00	15.00				0.40	6.00			
	chainage 45 to 60m	Sqm	1.00	6.10				0.40	2.44			
	chainage 60 to 75m	Sqm	1.00	15.00				0.40	6.00			
	chainage 75 to 90m	Sqm	1.00	5.00				0.40	2.00			
	chainage 90 to 105m	Sqm	1.00	15.00				0.40	6.00			
	chainage 105 to 120m	Sqm	1.00	14.00				0.40	5.60			
	chainage 120 to 135m	Sqm	1.00	15.00				0.40	6.00			
	chainage 135 to 145.9m	Sqm	1.00	10.90				0.40	4.36			
	Ganeshnagara 7th Cross[RHS]											
	chainage 0 to 15m	Sqm	1.00	15.00				0.40	6.00			
	chainage 15 to 30m	Sqm	1.00	15.00				0.40	6.00			
	chainage 30 to 45m	Sqm	1.00	15.00				0.40	6.00			
	chainage 45 to 60m	Sqm	1.00	15.00				0.40	6.00			
	chainage 60 to 75m	Sqm	1.00	15.00				0.40	6.00			
	chainage 75 to 90m	Sqm	1.00	15.00				0.40	6.00			
	chainage 90 to 105m	Sqm	1.00	15.00				0.40	6.00			
	chainage 105 to 120m	Sqm	1.00	15.00				0.40	6.00			
	chainage 120 to 135m	Sqm	1.00	5.30				0.40	2.12			
								Total Qty	**100.28**			
								Limited to	**100.00**	**100.62**	**10062.00**
E3	Removing and resetting of footpath slab (Approved arrival rate)											
	Ganesh Nagara Main Road[LHS]											
	chainage 0 to 15m	Sqm	1.00	13.20	0.90	0.90	0.90		11.88			
	chainage 15 to 30m	Sqm	1.00	12.30	0.90	0.90	0.90		11.07			
	chainage 30 to 45m	Sqm	1.00	13.20	0.90	0.90	0.90		11.88			
	chainage 45 to 60m	Sqm	1.00	13.20	0.90	0.90	0.90		11.88			
	chainage 60 to 75m	Sqm	1.00	12.30	0.90	0.90	0.90		11.07			
	chainage 75 to 90m	Sqm	1.00	9.60	0.90	0.90	0.90		8.64			
	chainage 90 to 105m	Sqm	1.00	12.30	0.90	0.90	0.90		11.07			

	chainage 105 to 120m	Sqm	1.00	12.30	0.90	0.90	0.90		11.07		
	chainage 120 to 135m	Sqm	1.00	12.60	0.90	0.90	0.90		11.34		
	chainage 135 to 150m	Sqm	1.00	11.40	0.90	0.90	0.90		10.26		
	chainage 150 to 165m	Sqm	1.00	13.80	1.20	1.20	1.20		16.56		
	chainage 165 to 180m	Sqm	1.00	12.60	1.20	1.20	1.20		15.12		
	chainage 180 to 195m	Sqm	1.00	11.40	1.20	1.20	1.20		13.68		
	chainage 195 to 210m	Sqm	1.00	10.20	1.20	1.20	1.20		12.24		
	chainage 210 to 225m	Sqm	1.00	8.30	1.20	1.20	1.20		9.96		
	chainage 225 to 240m	Sqm	1.00	11.40	1.20	1.20	1.20		13.68		
	chainage 240to 255m	Sqm	1.00	7.80	1.20	1.20	1.20		9.36		
	chainage 255to 270m	Sqm	1.00	1.60	1.20	1.20	1.20		1.92		
	chainage 270to 285m	Sqm	1.00	15.00	1.20	1.20	1.20		18.00		
	chainage 285to 300m	Sqm	1.00	4.00	1.20	1.20	1.20		4.80		
	Ganesh Nagara Main Road[RHS]										
	chainage 135 to 150m	Sqm	1.00	7.90	1.20	1.20	1.20		9.48		
	chainage 165 to 180m	Sqm	1.00	6.60	1.20	1.20	1.20		7.92		
	chainage 195 to 210m	Sqm	1.00	9.40	1.20	1.20	1.20		11.28		
	chainage 225 to 240m	Sqm	1.00	4.20	1.20	1.20	1.20		5.04		
	chainage 270to 285m	Sqm	1.00	10.80	1.20	1.20	1.20		12.96		
								Total Qty	**272.16**		
								Limited to	**252.45**	**223.91**	**56526.08**
									Total		**2419803.13**
									GST 18%		**435564.56**
									Grand Total		**2855367.69**

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2419908.13 → Sub - Total

Sub total :	2419908.13
Round off :	2419000.00
GST 18%	435420.00
G. Total :	2854420.00

Assistant Engineer
Ward No. 10
6/2/24

Assistant Executive Engineer
Kodigehalli Sub Division

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Byatarayanapura Division

PRE-MEASUREMENT SHEET

FIRST AND FINAL BILL

NAME OF WORK: - IMPROVEMENTS TO ROADS AND DRAINS AT TELECOM LAYOUT ROADS AND SURROUNDING AREAS IN WARD NO.13 (DODDABOMMASANDRA)

SL NO	PARTICULARS	UNIT	NO	MEASUREMENT					QUANTITY	REMARKS
				LENGTH	BREADTH			DEPTH		
					B1	B2	AVG B			
1	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)									
a	**New Culvert**									
		cum	1.00	6.20	1.50	1.50	1.50	1.20	11.16	
b	**Desilting of Drain**									
	Telecom Layout [LHS]									
	chainage 0 to 15m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 15 to 30m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 30 to 45m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 45 to 60m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 60 to 69.6m	cum	1.00	9.60	0.45	0.45	0.45	0.45	1.94	
	chainage 0 to 15m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 15 to 30m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 30 to 45m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 45 to 60m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 60 to 75m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 75 to 90m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 90 to 105m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 105 to 121.6m	cum	1.00	16.60	0.45	0.45	0.45	0.45	3.36	
	Telecom Layout [RHS]									
	chainage 0 to 15m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 15 to 30m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 30 to 45m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 45 to 60m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 60 to 69.6m	cum	1.00	9.60	0.45	0.45	0.45	0.45	1.94	
	chainage 0 to 15m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 15 to 30m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 30 to 45m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 45 to 60m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 60 to 75m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 75 to 90m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 90 to 105m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 105 to 121.6m	cum	1.00	16.60	0.45	0.45	0.45	0.45	3.36	
	Ganesh Nagara Main Road[LHS]									
	chainage 0 to 15m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 15 to 30m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 30 to 45m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 45 to 60m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 60 to 75m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 75 to 90m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 90 to 105m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	

109.80

19/12/25

	chainage 105 to 120m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 120 to 135m	cum	1.00	8.30	0.45	0.45	0.45	0.45	1.68	
	chainage 135 to 150m	cum	1.00	8.70	0.45	0.45	0.45	0.45	1.76	
	chainage 150 to 165m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 165 to 180m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 180 to 195m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 195 to 210m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 210 to 225m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 225 to 240m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 240to 255m	cum	1.00	14.30	0.45	0.45	0.45	0.45	2.90	
	chainage 255to 270m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 270to 285m	cum	1.00	15.00	0.45	0.45	0.45	0.45	3.04	
	chainage 285to 300m	cum	1.00	4.00	0.45	0.45	0.45	0.45	0.81	
	Ganesh Nagara Main Road[RHS]	cum	1.00	9.50	0.45	0.45	0.45	0.45	1.92	
	chainage 135 to 150m	cum	1.00	10.30	0.45	0.45	0.45	0.45	2.09	
	chainage 165 to 180m	cum	1.00	9.00	0.45	0.45	0.45	0.45	1.82	
	chainage 195 to 210m	cum	1.00	13.00	0.45	0.45	0.45	0.45	2.63	
	chainage 225 to 240m	cum	1.00	6.60	0.45	0.45	0.45	0.45	1.34	
	chainage 270to 285m	cum	1.00	13.20	0.45	0.45	0.45	0.45	2.67	
								Total qty	**156.82**	

Assistant Engineer (Grade-1)
Ward No.10
19/12/23

Assistant Executive Engineer
Kodigehalli Sub Division

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

2	Providing and laying in position Plain Cement Concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	For Culvert								
		Cum	1	6.20	1.50	1.50	1.50	0.15	1.40	
								Total qty	1.40	
								Limited to	**1.35**	

Assistant Engineer (Grade-1)
Ward No.10
25/01/24

Assistant Executive Engineer
Kodigehalli Sub Division
25/1/24
Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

3	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) Item No. 5.4, Page No. 9, Vol - II PWD SR 2021-22								
a	**New Culvert**								
	1st Course								
	LHS	Cum	1	6.20	0.60	0.60	0.60	0.45	1.67	
	RHS	Cum	1	6.20	0.60	0.60	0.60	0.45	1.67	
	2nd Course									
	LHS	Cum	1	6.20	0.60	0.60	0.60	0.45	1.67	
	RHS	Cum	1	6.20	0.60	0.60	0.60	0.45	1.67	
								Total qty	**6.70**	
								Limited to	**6.48**	

Assistant Engineer (Grade-1)
Ward No.10
26/01/24

Assistant Executive Engineer
Kodigehalli Sub Division
26/1/24
Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

4	Providing ruled pointing to cursed stone masonry with lime mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost all materials, labour, usage charges of machinery, curing complete as pre specification. Item No. 21.10 Page No. 190, Vol - II PWD SR 2021-22								
	Pointing								
	LHS	Sqm	1	6.20				0.90	5.58	

	RHS	Sqm	1	6.20				0.90	5.58
								Total Qty	**11.16**

Assistant Engineer (Grade-1)
Ward No.10
26/01/24

Assistant Executive Engineer
Kodigehalli Sub Division
26/1/24

5	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite / trap / basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate (PWD SR 2021-22 Vol -I Pg. 15 Item no 2.1.4)								
	Bed Concrete	Cum	1	6.20	1.50	1.50	1.50	0.10	0.93
	Culvert Coping	Cum	1	6.20	0.60	0.60	0.60	0.10	0.37
		Cum	1	6.20	0.60	0.60	0.60	0.10	0.37
	Ramp	Cum	1	6.20	0.70	0.70	0.70	0.15	0.65
		Cum	1	6.20	0.60	0.60	0.60	0.15	0.56
	Flagging Course								
	Telecom Layout								
	chainage 0 to 15m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 15 to 30m	Cum	1x2	8.40	0.15	0.15	0.15	0.10	0.25
	chainage 30 to 45m	Cum	1x2	9.00	0.15	0.15	0.15	0.10	0.27
	chainage 45 to 60m	Cum	1x2	12.85	0.15	0.15	0.15	0.10	0.39
	chainage 60 to 69.6m	Cum	1x2	9.80	0.15	0.15	0.15	0.10	0.29
	chainage 0 to 15m	Cum	1x2	9.10	0.15	0.15	0.15	0.10	0.27
	chainage 15 to 30m	Cum	1x2	13.05	0.15	0.15	0.15	0.10	0.39
	chainage 30 to 45m	Cum	1x2	10.50	0.15	0.15	0.15	0.10	0.32
	chainage 45 to 60m	Cum	1x2	8.80	0.15	0.15	0.15	0.10	0.26
	chainage 60 to 75m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 75 to 90m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 90 to 105m	Cum	1x2	10.80	0.15	0.15	0.15	0.10	0.32
	chainage 105 to 121.6m	Cum	1x2	1.20	0.15	0.15	0.15	0.10	0.04
	Ganesh Nagara Main Road[LHS]								
	chainage 0 to 15m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 15 to 30m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 30 to 45m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 45 to 60m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 60 to 75m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 75 to 90m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 90 to 105m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 105 to 120m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 120 to 135m	Cum	1x2	8.30	0.15	0.15	0.15	0.10	0.25
	chainage 135 to 150m	Cum	1x2	8.70	0.15	0.15	0.15	0.10	0.26
	chainage 150 to 165m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 165 to 180m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 180 to 195m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 195 to 210m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 210 to 225m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 225 to 240m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 240to 255m	Cum	1x2	14.30	0.15	0.15	0.15	0.10	0.43
	chainage 255to 270m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 270to 285m	Cum	1x2	15.00	0.15	0.15	0.15	0.10	0.45
	chainage 285to 300m	Cum	1x2	4.00	0.15	0.15	0.15	0.10	0.12
	Ganesh Nagara Main Road[RHS]	Cum	1x2	9.50	0.15	0.15	0.15	0.10	0.29
	chainage 135 to 150m	Cum	1x2	10.30	0.15	0.15	0.15	0.10	0.31
	chainage 165 to 180m	Cum	1x2	9.00	0.15	0.15	0.15	0.10	0.27
	chainage 195 to 210m	Cum	1x2	13.00	0.15	0.15	0.15	0.10	0.39
	chainage 225 to 240m	Cum	1x2	6.60	0.15	0.15	0.15	0.10	0.20
	chainage 270to 285m	Cum	1x2	13.20	0.15	0.15	0.15	0.10	0.40

Assistant Executive Engineer
Kodigehalli Sub Division
Bangalore
28/1/24

17.75

	Kerb Bottom									
	Ganeshnagara 7th Cross[LHS]									
	chainage 0 to 15m	Cum	1.00	14.40	0.20	0.20	0.20	0.10	0.29	
	chainage 15 to 30m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 30 to 45m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 45 to 60m	Cum	1.00	6.10	0.20	0.20	0.20	0.10	0.12	
	chainage 60 to 75m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 75 to 90m	Cum	1.00	5.00	0.20	0.20	0.20	0.10	0.10	
	chainage 90 to 105m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 105 to 120m	Cum	1.00	14.00	0.20	0.20	0.20	0.10	0.28	
	chainage 120 to 135m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 135 to 145.9m	Cum	1.00	10.90	0.20	0.20	0.20	0.10	0.22	
	Ganeshnagara 7th Cross[RHS]									
	chainage 0 to 15m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 15 to 30m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 30 to 45m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 45 to 60m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 60 to 75m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 75 to 90m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 90 to 105m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 105 to 120m	Cum	1.00	15.00	0.20	0.20	0.20	0.10	0.30	
	chainage 120 to 135m	Cum	1.00	5.30	0.20	0.20	0.20	0.10	0.11	
								Total Qty	**22.16**	
								Limited to	**20.66**	

Assistant Engineer (Grade-1)
Ward No.10

28/01/24

Assistant Executive Engineer
Kodigehalli Sub Division

6	Providing and constructing load bearing wall with Solid Concrete blocks of size 400 x 150 x 200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications. (PWD SR 2021-22 Vol - II Pg 17, item no 6.3)									
	Flagging Course									
	Telecom Layout									
	chainage 0 to 15m	Sqm	1x2	15.00				0.20	6.00	
	chainage 15 to 30m	Sqm	1x2	8.40				0.20	3.36	
	chainage 30 to 45m	Sqm	1x2	9.00				0.20	3.60	
	chainage 45 to 60m	Sqm	1x2	12.85				0.20	5.14	
	chainage 60 to 69.6m	Sqm	1x2	9.80				0.20	3.92	
	chainage 0 to 15m	Sqm	1x2	9.10				0.20	3.64	
	chainage 15 to 30m	Sqm	1x2	13.05				0.20	5.22	
	chainage 30 to 45m	Sqm	1x2	10.50				0.40	8.40	
	chainage 45 to 60m	Sqm	1x2	8.80				0.20	3.52	
	chainage 60 to 75m	Sqm	1x2	15.00				0.20	6.00	
	chainage 75 to 90m	Sqm	1x2	15.00				0.20	6.00	
	chainage 90 to 105m	Sqm	1x2	10.80				0.20	4.32	
	chainage 105 to 121.6m	Sqm	1x2	1.20				0.20	0.48	
	Ganesh Nagara Main Road[LHS]									
	chainage 0 to 15m	Cum	1x2	15.00				0.40	12.00	
	chainage 15 to 30m	Cum	1x2	15.00				0.40	12.00	
	chainage 30 to 45m	Cum	1x2	15.00				0.40	12.00	
	chainage 45 to 60m	Cum	1x2	15.00				0.40	12.00	
	chainage 60 to 75m	Cum	1x2	15.00				0.40	12.00	
	chainage 75 to 90m	Cum	1x2	15.00				0.40	12.00	
	chainage 90 to 105m	Cum	1x2	15.00				0.40	12.00	
	chainage 105 to 120m	Cum	1x2	15.00				0.40	12.00	

155.60

288.60

	chainage 120 to 135m	Cum	1x2	8.30				0.40	6.64	
	chainage 135 to 150m	Cum	1x2	8.70				0.40	6.96	
	chainage 150 to 165m	Cum	1x2	15.00				0.40	12.00	
	chainage 165 to 180m	Cum	1x2	15.00				0.40	12.00	
	chainage 180 to 195m	Cum	1x2	15.00				0.40	12.00	
	chainage 195 to 210m	Cum	1x2	15.00				0.40	12.00	
	chainage 210 to 225m	Cum	1x2	15.00				0.40	12.00	
	chainage 225 to 240m	Cum	1x2	15.00				0.40	12.00	
	chainage 240to 255m	Cum	1x2	14.30				0.40	11.44	
	chainage 255to 270m	Cum	1x2	15.00				0.40	12.00	
	chainage 270to 285m	Cum	1x2	15.00				0.40	12.00	
	chainage 285to 300m	Cum	1x2	4.00				0.40	3.20	
	Ganesh Nagara Main Road[RHS]	Cum	1x2	9.50				0.40	7.60	
	chainage 135 to 150m	Cum	1x2	10.30				0.40	8.24	
	chainage 165 to 180m	Cum	1x2	9.00				0.40	7.20	
	chainage 195 to 210m	Cum	1x2	13.00				0.40	10.40	
	chainage 225 to 240m	Cum	1x2	6.60				0.40	5.28	
	chainage 270to 285m	Cum	1x2	13.20				0.40	10.56	173.52
								Total Qty	**329.12**	

Assistant Engineer (Grade-1)
Ward No.10
30/01/24

Assistant Executive Engineer
Kodigehalli Sub Division

9	Earth work in surface Excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)									
	Road Work									
	Telecom Layout									
	chainage 0 to 15m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 15 to 30m	Cum	1	15.00	3.00	3.00	3.00	0.20	9.00	
	chainage 30 to 45m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 45 to 60m	Cum	1	15.00	1.80	1.80	1.80	0.20	5.40	
	chainage 60 to 69.6m	Cum	1	9.60	1.00	1.00	1.00	0.20	1.92	
	chainage 0 to 15m	Cum	1	15.00	1.20	1.20	1.20	0.20	3.60	
	chainage 15 to 30m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 30 to 45m	Cum	1	15.00	2.00	2.00	2.00	0.20	6.00	
	chainage 45 to 60m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 60 to 75m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 75 to 90m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 90 to 105m	Cum	1	15.00	2.50	2.50	2.50	0.20	7.50	
	chainage 105 to 121.6m	Cum	1	16.60	1.30	1.30	1.30	0.20	4.32	
	Ganeshnagara 7th Cross									
	chainage 0 to 15m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 15 to 30m	Cum	1	15.00	4.10	4.10	4.10	0.20	12.30	
	chainage 30 to 45m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 45 to 60m	Cum	1	15.00	3.20	3.20	3.20	0.20	9.60	
	chainage 60 to 75m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 75 to 90m	Cum	1	15.00	2.20	2.20	2.20	0.20	6.60	
	chainage 90 to 105m	Cum	1	15.00	1.00	1.00	1.00	0.20	3.00	
	chainage 105 to 120m	Cum	1	15.00	1.20	1.20	1.20	0.20	3.60	
	chainage 120 to 135m	Cum	1	15.00	2.50	2.50	2.50	0.20	7.50	
	chainage 135 to 145.9m	Cum	1	10.90	1.00	1.00	1.00	0.20	2.18	
								Total Qty	**109.52**	
								Limited to	**105.00**	

Assistant Engineer (Grade-1)
19/12/24

Assistant Executive Engineer

10	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no. 24 Item No. 4.27 (A))								
	Road Work								
	Telecom Layout								
	chainage 0 to 15m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 15 to 30m	Cum	1	15.00	3.00	3.00	3.00	0.25	11.25
	chainage 30 to 45m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 45 to 60m	Cum	1	15.00	1.80	1.80	1.80	0.25	6.75
	chainage 60 to 69.6m	Cum	1	9.60	1.00	1.00	1.00	0.25	2.40
	chainage 0 to 15m	Cum	1	15.00	1.20	1.20	1.20	0.25	4.50
	chainage 15 to 30m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 30 to 45m	Cum	1	15.00	2.00	2.00	2.00	0.25	7.50
	chainage 45 to 60m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 60 to 75m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 75 to 90m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 90 to 105m	Cum	1	15.00	2.50	2.50	2.50	0.25	9.38
	chainage 105 to 121.6m	Cum	1	16.60	1.30	1.30	1.30	0.25	5.40
	Ganeshnagara 7th Cross								
	chainage 0 to 15m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 15 to 30m	Cum	1	15.00	4.10	4.10	4.10	0.25	15.38
	chainage 30 to 45m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 45 to 60m	Cum	1	15.00	3.20	3.20	3.20	0.25	12.00
	chainage 60 to 75m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 75 to 90m	Cum	1	15.00	2.20	2.20	2.20	0.25	18.25
	chainage 90 to 105m	Cum	1	15.00	1.00	1.00	1.00	0.25	3.75
	chainage 105 to 120m	Cum	1	15.00	1.20	1.20	1.20	0.25	4.50
	chainage 120 to 135m	Cum	1	15.00	2.50	2.50	2.50	0.25	9.38
	chainage 135 to 145.9m	Cum	1	10.90	1.00	1.00	1.00	0.25	2.73
								Total Qty	**136.90**
								Limited to	**131.25**

Assistant Engineer (Grade-I)
Ward No. 10
30/01/24

Assistant Executive Engineer
Kodigehalli Sub Division

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

11	Providing and applying Primer Coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no. 29 Item No. 5.1 A (i))								
	Road Work								
	Telecom Layout								
	chainage 0 to 15m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 15 to 30m	Sqm	1	15.00	3.00	3.00	3.00		45.00
	chainage 30 to 45m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 45 to 60m	Sqm	1	15.00	1.80	1.80	1.80		27.00
	chainage 60 to 69.6m	Sqm	1	9.60	1.00	1.00	1.00		9.60
	chainage 0 to 15m	Sqm	1	15.00	1.20	1.20	1.20		18.00
	chainage 15 to 30m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 30 to 45m	Sqm	1	15.00	2.00	2.00	2.00		30.00
	chainage 45 to 60m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 60 to 75m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 75 to 90m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 90 to 105m	Sqm	1	15.00	2.50	2.50	2.50		37.50
	chainage 105 to 121.6m	Sqm	1	16.60	1.30	1.30	1.30		21.58
	Ganeshnagara 7th Cross								
	chainage 0 to 15m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 15 to 30m	Sqm	1	15.00	4.10	4.10	4.10		61.50
	chainage 30 to 45m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 45 to 60m	Sqm	1	15.00	3.20	3.20	3.20		48.00
	chainage 60 to 75m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 75 to 90m	Sqm	1	15.00	2.20	2.20	2.20		33.00

466.18

	chainage 90 to 105m	Sqm	1	15.00	1.00	1.00	1.00		15.00
	chainage 105 to 120m	Sqm	1	15.00	1.20	1.20	1.20		18.00
	chainage 120 to 135m	Sqm	1	15.00	2.50	2.50	2.50		37.50
	chainage 135 to 145.9m	Sqm	1	10.90	1.00	1.00	1.00		10.90
								Total Qty	**547.58**
								Limited to	**525.00**

Assistant Engineer (Grade-1)
Ward No.10

Assistant Executive Engineer
Kodigehalli Sub Division

12	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))								
	Road Work								
	Telecom Layout								
	chainage 0 to 15m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 15 to 30m	Cum	1	15.00	3.00	3.00	3.00	0.05	2.25
	chainage 30 to 45m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 45 to 60m	Cum	1	15.00	1.80	1.80	1.80	0.05	1.35
	chainage 60 to 69.6m	Cum	1	9.60	1.00	1.00	1.00	0.05	0.48
	chainage 0 to 15m	Cum	1	15.00	1.20	1.20	1.20	0.05	0.90
	chainage 15 to 30m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 30 to 45m	Cum	1	15.00	2.00	2.00	2.00	0.05	1.50
	chainage 45 to 60m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 60 to 75m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 75 to 90m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 90 to 105m	Cum	1	15.00	2.00	1.00	1.50	0.05	1.13
	chainage 105 to 121.6m	Cum	1	16.60	1.30	1.30	1.30	0.05	1.08
	Ganeshnagara 7th Cross								
	chainage 0 to 15m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 15 to 30m	Cum	1	15.00	3.00	3.00	3.00	0.05	2.25
	chainage 30 to 45m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 45 to 60m	Cum	1	15.00	2.50	2.50	2.50	0.05	1.88
	chainage 60 to 75m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 75 to 90m	Cum	1	15.00	2.00	2.00	2.00	0.05	1.50
	chainage 90 to 105m	Cum	1	15.00	1.00	1.00	1.00	0.05	0.75
	chainage 105 to 120m	Cum	1	15.00	1.20	1.20	1.20	0.05	0.90
	chainage 120 to 135m	Cum	1	15.00	2.00	2.00	2.00	0.05	1.50
	chainage 135 to 145.9m	Cum	1	10.90	1.00	1.00	1.00	0.05	0.55
								Total Qty	**24.75**
								Limited to	**21.88**

Assistant Engineer (Grade-1)
Ward No.10

Assistant Executive Engineer
Kodigehalli Sub Division

13	Providing and applying Tack Coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no. 29 Item No 5.4 (ii))								
	Road Work								
	Road Work								
	Telecom Layout								
	chainage 0 to 15m	Sqm	1	15.00	4.30	4.50	4.40		66.00
	chainage 15 to 30m	Sqm	1	15.00	4.50	4.70	4.60		69.00
	chainage 30 to 45m	Sqm	1	15.00	4.70	5.00	4.85		72.75
	chainage 45 to 60m	Sqm	1	15.00	5.00	4.70	4.85		72.75
	chainage 60 to 69.6m	Sqm	1	9.60	4.70	4.80	4.75		45.60
	chainage 0 to 15m	Sqm	1	15.00	4.80	4.70	4.75		71.25
	chainage 15 to 30m	Sqm	1	15.00	4.70	4.60	4.65		69.75
	chainage 30 to 45m	Sqm	1	15.00	4.60	4.75	4.68		70.13
	chainage 45 to 60m	Sqm	1	15.00	4.75	4.80	4.78		71.63

	chainage 60 to 75m	Sqm	1	15.00	4.80	4.70	4.75		71.25
	chainage 75 to 90m	Sqm	1	15.00	4.70	4.80	4.75		71.25
	chainage 90 to 105m	Sqm	1	15.00	4.80	4.90	4.85		72.75
	chainage 105 to 121.6m	Sqm	1	16.60	4.90	5.00	4.95		82.17
	Ganeshnagara 7th Cross								
	chainage 0 to 15m	Sqm	1	15.00	4.80	4.60	4.70		70.50
	chainage 15 to 30m	Sqm	1	15.00	4.60	4.50	4.55		68.25
	chainage 30 to 45m	Sqm	1	15.00	4.50	4.40	4.45		66.75
	chainage 45 to 60m	Sqm	1	15.00	4.40	4.60	4.50		67.50
	chainage 60 to 75m	Sqm	1	15.00	4.60	4.80	4.70		70.50
	chainage 75 to 90m	Sqm	1	15.00	4.80	4.40	4.60		69.00
	chainage 90 to 105m	Sqm	1	15.00	4.40	4.50	4.45		66.75
	chainage 105 to 120m	Sqm	1	15.00	4.50	4.30	4.40		66.00
	chainage 120 to 135m	Sqm	1	15.00	4.30	4.20	4.25		63.75
	chainage 135 to 145.9m	Sqm	1	10.90	4.20	4.80	4.50		49.05
	Road Cutting /Patch work	Sqm	4	1.79	1.80	1.80	1.80		12.24
								Total Qty	**1576.56**
								Limited to	**1576.12**

Assistant Engineer (Grade-1)
Ward No.10 2/2/24

Assistant Executive Engineer
Kodigehalli Sub Division

16	Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kankar / Moorum. (Tipper 14 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1C)								
	Quantity from Item NO 1	Cum	1	156.82				0.92	144.27
	Quantity from Item NO 9	Cum	1	105.00				0.92	96.60
								Total Qty	**240.87**

Assistant Engineer (Grade-1)
Ward No.10 5/2/24

Assistant Executive Engineer
Kodigehalli Sub Division

17	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4B)								
	Qty frm Item No-16	T.km		240.87	1.28				308.31
	Total								
								Total Qty	**308.31**

Assistant Engineer (Grade-1)
Ward No.10 5/2/24

Assistant Executive Engineer
Kodigehalli Sub Division

Kodigehalli Sub Division
EBMP, Bangalore